# Mikhail Salnikov

## Personal Data


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| Name: | Mikhail Salnikov |
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| scholar: | scholar.google.com/citations?user=n6pH3YMAAAAJ |


## Work Experience

from 08/2021

**Researcher**, Artificial Intelligence Research Institute

***AI for Bioinformatics*, *Sequence processing***

I manage a project of the SARS-CoV-2 spread mutations prediction that was solved by a few-shot learning approach and a pretrained protein language model. My contribution includes everything that concerns ML, a paper just submitted to ICML 2022 and is now under review. In addition, I doing statistical analysis of the spread of coronavirus infection.

08/2020 - 08/2021

**Junior Research-Engineer**, ADASE group, Skoltech.

***Neural Architecture Search*, *NLP*, Graphs**

During working in the laboratory I participated in two big projects. First, AutoDL platform for sequence data with NAS in RNN and Transformers search space and hyperparameters tuning. The second one is a project for an optimization query execution plan (join order) in a distributed database with DL and RL. During work on both projects, I was involved in both research and development.

02/2017 - 08/2020

**ML Engineer**, Wallarm.

***Sequence processing*, *Production ML*, *Kubeflow***

Starting from an intern position I worked on a problem to identify attacks on a web application. This is a not trivial sequence classification task with a lot of limitations that was solved at a different time with CNN, RNN, Transformers with a lot of custom preprocessing technics. My career developed fast from intern to lead in developing new ML-based product[1]. In addition to the development itself, my responsibilities included hiring new interns, organization research and experiments, and bringing the product to production.

## Education

06/2021 — MSc. Data Science
Skolkovo Institute of Science and Technology

07/2018 — B.S. Applied Mathematics and Information Technologies
Mordovian State University

[1] Under NDA

## Papers

Klyuchnikov, N., Trofimov, I., Artemova, E., **Salnikov, M.**, Fedorov, M., Burnaev, E. (2020). NAS-Bench-NLP: Neural Architecture Search Benchmark for Natural Language Processing. arXiv preprint arXiv:2006.07116 (2020).

Kornilova Anatasiia, **Mikhail Salnikov**, Olga Novitskaya, Maria Begicheva, Egor Sevriugov, Kirill Shcherbakov, Valeriya Pronina, and Dmitry V. Dylov. Deep learning Framework for Mobile Microscopy. 2021 IEEE 18th International Symposium on Biomedical Imaging (ISBI), 2021, pp. 324-328, doi: 10.1109/ISBI48211.2021.9434133.

Trofimov, I., Klyuchnikov, N., **Salnikov, M.**, Filippov, A., Burnaev, E. (2020). Multi-fidelity Neural Architecture Search with Knowledge Distillation. arXiv preprint arXiv:2006.08341 (2020).

## Technical Skills

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| Data Science | PyTorch, TensorFlow,<br>Scikit Learn, NumPy and SciPy,<br>Matplotlib, Pandas, etc. |
| Tools | gRPC, MongoDB, Grafana, Docker, Kubernetes, KubeFlow, FastAPI |
| Languages | Python, SQL, C/C++, JavaScript |